

REMARKS

This paper is being provided in response to the Office Action dated April 19, 2010 for the above-referenced application. In this response, Applicants have amended claims 4-10 and added new claims 19 and 20 to clarify that which Applicants consider to be the presently-claimed invention. Applicants respectfully submit that the amendments to the claims are fully supported by the originally-filed specification, consistent with the discussion herein.

Applicants thank the Examiner for the allowance of claims 1-3 and 11-18.

Applicants have amended claims 4-10 to remove means plus function language and to recite various features akin to those of the allowed claims and which are discussed below. New claims 19 and 20, that depend from claim 1, have been added to be consistent with amendments contained herein concerning claims 9 and 10.

The rejection of claims 4-7 and 9-10 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,069,044 to Okada (hereinafter "Okada") in view of U.S. Patent App. Pub. No. 2004/0029640 to Masuyama, et al. (hereinafter "Masuyama") and the rejection of claim 8 under 35 U.S.C. 103(a) as being unpatentable over Okada and Masuyama in view of U.S. Patent No. 7,175,529 to Hartman et al. (hereinafter "Hartman") are hereby traversed and reconsideration is respectfully requested in view of the amendments to the claims contained herein.

Independent claim 4, as amended herein, recites a mobile communication terminal including a first memory and a second memory for storing data. An operating system is arranged

to access data stored in said first memory. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in said second memory. A 3-axis magnetic sensor and a 2-axis acceleration sensor are used as sensors for detecting at least one of position, direction, attitude and movement of the mobile communication terminal in connection with at least one axis of a coordinate system in accordance with a detection instruction generated by said application execution environment according to a description of said platform-independent application. A memory processor stores detection result data acquired based on detection results by said sensors in said first memory, wherein the detection results include information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis. A data transfer device transfers the detection result data stored in the first memory to the second memory according to a data transfer instruction from the application execution environment, wherein said application execution environment executes said platform-independent application using the detection result data stored in said second memory. Claims 9 and 10 depend from independent claim 4.

Independent claim 5, as amended herein, recites a mobile communication terminal including an operating system arranged to access data stored in a first memory. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in a second memory. A detection device detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. A data processor performs a data process of assigning the detection data of said detection device to predetermined arithmetic expression for calculation and storing the calculation result data in said first memory, wherein

the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis. A data transfer device transfers the calculation result data stored in the first memory to the second memory according to a data transfer instruction from the application execution environment, wherein said application execution environment executes the platform-independent application using the calculation result data stored in said second memory. Claims 8-10 depend from independent claim 5.

Independent claim 6, as amended herein, recites a mobile communication terminal including an operating system arranged to access data stored in a first memory. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in a second memory. A detection device detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. A data processor performs data processes of linking mutually between detection data of said detection means or data calculated from this detection data and other data acquired by means other than said detection means, and storing the linked data in said first memory, wherein the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis. A data transfer device transfers the linked data stored in the first memory to the second memory according to a data transfer instruction from the application execution environment, wherein said application execution environment executes the platform-independent application using said linked data stored in said second memory. Claims 8-10 depend from independent claim 6.

Independent claim 7, as amended herein, recites a mobile communication terminal including an operating system arranged to use data stored in a first memory. An application execution environment is executable on said operating system and executes a platform-independent application having access to data stored in a second memory. A detection device detects at least one of position, direction, attitude and movement of said mobile communication terminal in connection with at least one axis of a coordinate system. A data processor performs a data process of specifying at least two of detection data of said detection device or data calculated from the detection data, which meet predetermined conditions, and storing the specified data in said first memory, wherein the detection data includes information concerning changes to the at least one of position, direction, attitude and movement of the mobile communication terminal in connection with the at least one axis. A data transfer device transfers the specified data stored in the first memory to the second memory according to a data transfer instruction from the application execution environment, wherein said application execution environment executes the platform-independent application using said specified data stored in said memory means. Claims 8-10 depend from independent claim 7.

Okada discloses an electronic apparatus having game and telephone functions. The Office Action cites principally to col. 8, line 65 to col. 9, line 10, col. 6, lines 40-47, and col. 7, lines 12-25 of Okada.

Masuyama discloses a game system which is arranged to execute programs stored on removable cartridges. Masuyama describes providing motion detecting means for use in executing programs by means of a motion sensor contained in the removable cartridge. The Office Action cites principally to Figure 17 and paragraphs [0099] and [0108] of Masuyama.

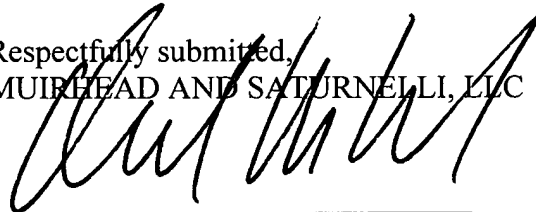
Hartman discloses a method and apparatus for an RF transmitter layout in a gaming hall. The Final Office Action cites to Hartman as disclosing a radio communication means for communicating by wireless communication utilizing radio waves, citing specifically to col. 5, lines 52-67 and col. 6, lines 26-45 of Hartman.

Applicants submit that a problem with prior art systems in the field of the presently-claimed invention is that motion sensing data is stored in software platform memory and is not readily accessible by platform-independent applications, such as JAVA applications, which are generally only permitted to access memory reserved for the application environment. In the prior art systems, the way to import this data from the platform memory for use in an application running in the environment involves complex pre-processing of the motion data and therefore in increase in the complexity of application development. (See, for example, paragraphs [0005]-[0008] of the originally-filed specification.) For example, the game system described in Masuyama describes the execution of an application on a particular platform, not on an application execution environment (e.g., Sun Microsystem's JAVA runtime environment), executable on an operating system, that may execute platform-independent applications, as is recited by Applicants. Applicants' independent claims 4-7, as amended herein, recite features, for example involving transfer of recited data among first and second memories and the use and access thereof, that provide and facilitate the advantages noted above by Applicants and that are not taught or disclosed in the cited prior art, as recognized in the Office Action in connection with the allowed claims.

Accordingly, Applicants respectfully submit that Okada, Masuyama and Hartman, taken alone or in any combination, do not teach or fairly suggest at least the above-noted features as are recited by Applicants. In view of the above, Applicants respectfully request that the rejection be reconsidered and withdrawn.

Based on the above, Applicants respectfully request that the Examiner reconsider and withdraw all outstanding rejections and objections. Favorable consideration and allowance are earnestly solicited. Should there be any questions after reviewing this paper, the Examiner is invited to contact the undersigned at 508-898-8603.

Respectfully submitted,
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